Natural gas distribution	Emission factor (scf/hour/component)
Connector	1.69
Block Valve	0.557
Control Valve	9.34
Pressure Relief Valve	0.27
Orifice Meter	0.212
Regulator	0.772
Open-ended Line	26.131
Population Emission Factors—Below Grade Metering-Regulating station [1] Components, Gas Service [2]	
Below Grade M&R Station, Inlet Pressure >300 psig	1.30
Below Grade M&R Station, Inlet Pressure 100 to 300 psig	0.20
Below Grade M&R Station, Inlet Pressure <100 psig	0.10
Population Emission Factors—Distribution Mains, Gas Service [3]	
Unprotected Steel	12.58
Protected Steel	0.35
Plastic	1.13
Cast Iron	27.25
Population Emission Factors—Distribution Services, Gas Service [4]	
Unprotected Steel	0.19
Protected Steel	0.02
Plastic	0.001
Copper	0.03

[1] Excluding customer meters.
[2] Emission Factor is in units of "scf/hour/station."
[3] Emission Factor is in units of "scf/hour/mile."
[4] Emission Factor is in units of "scf/hour/number of services."

[76 FR 80594, Dec. 23, 2011]

Subpart X—Petrochemical Production

§ 98.240 Definition of the source category.

(a) The petrochemical production source category consists of all processes that produce acrylonitrile, carbon black, ethylene, ethylene dichloride, ethylene oxide, or methanol, except as specified in paragraphs (b) through (g) of this section. The source category includes processes that produce the petrochemical as an intermediate in the on-site production of other chemicals as well as processes that produce the petrochemical as an end product for sale or shipment off site.

(b) A process that produces a petrochemical as a byproduct is not part of the petrochemical production source category.

(c) A facility that makes methanol, hydrogen, and/or ammonia from synthesis gas is part of the petrochemical source category if the annual mass of methanol produced exceeds the individual annual mass production levels of both hydrogen recovered as product and ammonia. The facility is part of subpart P of this part (Hydrogen Production) if the annual mass of hydrogen recovered as product exceeds the individual annual mass production levels of both methanol and ammonia. The facility is part of subpart G of this part (Ammonia Manufacturing) if the annual mass of ammonia produced exceeds the individual annual mass production levels of both hydrogen recovered as product and methanol.

(d) A direct chlorination process that is operated independently of an oxychlorination process to produce ethylene dichloride is not part of the petrochemical production source category.

(e) A process that produces bone black is not part of the petrochemical source category.

(f) A process that produces a petrochemical from bio-based feedstock is not part of the petrochemical production source category.

(g) A process that solely distills or recycles waste solvent that contains a petrochemical is not part of the petrochemical production source category.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 79157, Dec. 17, 2010; 76 FR 80590, Dec. 23, 2011]

§ 98.241 Reporting threshold.

You must report GHG emissions under this subpart if your facility contains a petrochemical process as specified in § 98.240, and the facility meets the requirements of either § 98.2(a)(1) or (2).

§ 98.242 GHGs to report.

You must report the information in paragraphs (a) through (c) of this section:

(a) CO_2 CH_4, and N_2O process emissions from each petrochemical process unit. Process emissions include CO_2 generated by reaction in the process and by combustion of process off-gas in stationary combustion units and flares.

(1) If you comply with § 98.243(b) or (d), report under this subpart the calculated CO_2, CH_4, and N_2O emissions for each stationary combustion source and flare that burns any amount of petrochemical process off-gas. If you comply with § 98.243(b), also report under this subpart the measured CO_2 emissions from process vents routed to stacks that are not associated with stationary combustion units.

(2) If you comply with § 98.243(c), report under this subpart the calculated CO_2 emissions for each petrochemical process unit.

(b) CO_2, CH_4, and N_2O combustion emissions from stationary combustion units.

(1) If you comply with § 98.243(b) or (d), report these emissions from stationary combustion units that are associated with petrochemical process units and burn only supplemental fuel under subpart C of this part (General Stationary Fuel Combustion Sources) by following the requirements of subpart C.

(2) If you comply with § 98.243(c), report CO_2, CH_4, and N_2O combustion emissions under subpart C of this part (General Stationary Fuel Combustion Sources) by following the requirements of subpart C for all fuels, except emissions from burning petrochemical process off-gas in any combustion unit, including units that are not part of the petrochemical process unit, are not to be reported under subpart C of this part. Determine the applicable Tier in subpart C of this part (General Stationary Fuel Combustion Sources) based on the maximum rated heat input capacity of the stationary combustion source.

(c) CO_2 captured. You must report the mass of CO_2 captured under, subpart PP of this part (Suppliers of Carbon Dioxide (CO_2) by following the requirements of subpart PP.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 79157, Dec. 17, 2010; 78 FR 71960, Nov. 29, 2013]

§ 98.243 Calculating GHG emissions.

(a) If you route all process vent emissions and emissions from combustion of process off-gas to one or more stacks and use CEMS on each stack to measure CO_2 emissions (except flare stacks), then you must determine process-based GHG emissions in accordance with paragraph (b) of this section. Otherwise, determine process-based GHG emissions in accordance with the procedures specified in paragraph (c) or (d) of this section.

(b) *Continuous emission monitoring system (CEMS).* Route all process vent emissions and emissions from stationary combustion units that burn any amount of process off-gas to one or more stacks and determine GHG emissions as specified in paragraphs (b)(1) through (3) of this section.

(1) Determine CO_2 emissions from each stack (except flare stacks) according to the Tier 4 Calculation Methodology requirements in subpart C of this part.

(2) For each stack (except flare stacks) that includes emissions from combustion of petrochemical process off-gas, calculate CH_4 and N_2O emissions in accordance with subpart C of this part (use Equation C–10 and the ''fuel gas'' emission factors in Table C–2 of subpart C of this part).

(3) For each flare, calculate CO_2, CH_4, and N_2O emissions using the methodology specified in § 98.253(b)(1) through (3).